

ABSTRACT

The present invention comprises a method of recycling polyurethane-containing material. The method comprises combining a polyurethane-containing material with a solvent and forming a solution of the polyurethane-containing material and the solvent. 5 Next, a non-solvent is added to the polyurethane solution to form a suspension of polyurethane in a solvent/non-solvent mixture. Finally, the solvent is removed to form a suspension of polyurethane in solvent. The solvent is preferably a polar, aprotic solvent. The solvent may be chosen from the group consisting of dimethylsulfoxide (DMSO), 1-methyl-2-pyrrolidone (NMP), N, N-dimethylformamide (DMF), acetonitrile, 10 tetrahydrofuran (THF), hexamethylphosphoric acid triamide (HMPT) and mixtures thereof. The polyurethane-containing material may be chosen from the group consisting of foam trimmings, foam buns and foam skin, changeover blocks, off-specification material, polyurethane powder, molding mushrooms, fabrication scrap and post- 15 consumer waste. In addition, the polyurethane-containing material may be prime polyurethane material. Finally a filtration step may be added to filter the solution before the non-solvent is added to form the suspension.